



**TECHNICAL ADVISORY COMMITTEE
AGENDA**

November 21, 2008; 1:30 – 3:00 p.m.
McCloskey Room

- I. Call to Order
- II. Approval of Minutes:
 - A. October 24, 2008
- III. Communications from the Chair
- IV. Reports from Officers and/or Committees
 - A. Updates on MPO related projects
- V. Reports from the MPO Staff
 - A. FY 2009 First Quarter Progress Report
 - B. North Campus Area Study
- VI. Old Business
 - A. Complete Streets Policy
Recommendation Requested
 - B. Rail Crossing Resolution
Recommendation Requested
- VII. New Business
 - A. Highway Safety Improvement Program Grant Application Review
Recommendation Requested
- VIII. Communications from Committee Members (*non-agenda items*)
 - A. Topic Suggestions for future agendas
- IX. Upcoming Meetings
 - A. MPO Winter Mixer! – December 10, 2008 at 12:00pm (McCloskey Room)
 - B. Policy Committee – January 9, 2009 at 1:30 p.m. (McCloskey Room)
 - C. Technical Advisory Committee – January 28, 2009 at 10:00 a.m. (McCloskey Room)
 - D. Citizens Advisory Committee – January 28, 2009 at 6:30 p.m. (McCloskey Room)

Adjournment



Bloomington/Monroe County Metropolitan Planning Organization
Technical Advisory Committee

DRAFT Technical Advisory Committee Meeting Minutes
October 24, 2008 McCloskey Conference Room 135, City Hall

Technical Advisory Committee minutes are transcribed in a summarized outline manner. Audio recordings are on file with the City of Bloomington Planning Department.

Attendance

Technical Advisory Committee: Toby Turner (Monroe Co. Highway), Perry Maull (IU Campus Bus), Lew May (Bloomington Transit), Jim Ude (INDOT), Laura Haley (Bloomington ITS), Kurt Babcock (Monroe County GIS), Matthew Lepke (Monroe Co. Planning), Jewel Echelbarger (Rural Transit), Tom Micuda (Bloomington Planning), Andrea Roberts (Bloomington Public Works), Adrian Reid (Bloomington Engineering), and Jane Fleig (Bloomington Utilities).

Others: Joyce Williams (Bloomington Engineering), Josh Desmond (MPO Staff), Raymond Hess (MPO Staff), Scott Robinson (MPO Staff), and Jane Weiser (Bloomington Planning Staff).

I. Call to Order

Adrian Reid called the meeting to order.

II. Approval of Minutes:

A. August 22, 2008—Joyce Williams noted that the railroad has not agreed to the crossing although the minutes reported that they had. Tom Micuda moved approval of the corrected minutes. Jane Fleig seconded. The minutes were approved by unanimous voice vote.

III. Communications from the Chair

There were none.

IV. Reports from Officers and/or Committees

A. Updates on MPO related projects

Toby Turner reported that the Smith Rd. utility relocation is underway with a bid date in February. The Vernal Pike project is under right-of-way acquisition. The Mt. Tabor Rd., Bridge #33 and Fullerton Pike RFPs have been submitted for review. The County would like to include City Planning in the selection process.

Adrian Reid reported that they have had a public meeting for the Atwater/Henderson project. The Safe Routes to School project on Henderson is in process of acquisition. He reported that Part One of a webinar on context-sensitive designs was presented. Part Two will be on Tuesday, Nov. 19.

Lew May said BT had a 2nd public charette on their Transit Development Study. Their consultant proposed a radial system, grid system or corridor-based route structure. Park and Ride options were discussed. BT would like to increase their service by 50%. The study should be completed by the end of the year. There was some discussion about Park and Ride details.

V. Reports from the MPO Staff

Raymond Hess presented a federal funding balance sheet. He pointed out the programming amount and the obligations. He asked for feedback. Only \$145,000 (out of \$15,000,000) has been left

unprogrammed. Josh Desmond explained that Federal Highway Administration (FHA) and INDOT have agreed that we are no longer in a “use it or lose it” situation with our funding. We will be able to carry over funds. Both of those agencies operate on a 2-year budget. We will need to make sure that our funding levels are listed very clearly for INDOT. We could be locked out of some funding for 2 years if we aren’t very careful. We have 10 days to work with our local partners and put together one final project list for our TIP for 2009 and anything that we expect to let for FY 2010 and 2011. Transit money is not included in this. Mr. Hess said INDOT is really just looking for which projects need how much money and when they will be let. If a project is right on the cusp, we don’t want to miss the window and have to wait two years.

VI. Old Business

A. Complete Streets

Raymond Hess presented the Complete Streets policy as drafted by the CAC. A good Complete Streets policy should specify that road projects should include all users including bicycles, pedestrians, transit users, motorists and people of all ages and abilities. He provided an overview of the policy and identified several key points. The Policy Committee would certify that each project included in the TIP is compliant with the Complete Streets policy or is exempt from it. The Policy Committee would make their recommendation after input from the CAC and the TAC. The MPO can freeze funds if they decide that the LPA isn’t meeting the Complete Streets policy.

Mr. Micuda asked Mr. Ude if INDOT has started any talks about Complete Streets policy. Mr. Ude was not aware of any. Mr. Reid said that he and Joyce Williams have reviewed the policy and have presented their comments. They felt that there was a need to define different “contexts” throughout Bloomington. They object to the stop work order. The contract is with INDOT not the Policy Committee. Mr. May asked if this policy would apply to transit projects and how. Mr. Hess said that needs to be clarified. The initial intent for this was for STP or road projects. Mr. May wanted that clarified to prevent misunderstanding. Mr. Turner said the County was concerned that this will add layers to the process and further delay projects. Mr. Micuda said they need to come up with another name than “Stop Work Order.” Mr. May noted that stopping projects could add to their cost. Mr. Micuda suggested that they consider setting this up heavily weighted to the design process in terms of outreach and feedback concerning modifications. The Policy Committee could see if there’s a design change. That would free up construction to simply implement the plan. Mr. Hess asked for comments to be forwarded to staff.

VII. New Business

A. Transportation Improvement Program FY 2008-2011 Amendments

a. BT Hybrid Bus Grant

Recommendation Requested

Josh Desmond reported that BT has funds to purchase 4 new 35-foot buses. Lew May has secured additional funds through Senator Lugar to upgrade those diesel buses to hybrids. This will require a TIP amendment. This was given a positive recommendation from the CAC. Lew May moved approval, Perry Maull seconded. The motion was approved unanimously to support this request.

b. Rural Transit Operating and Capital budget adjustments

Recommendation Requested

Josh Desmond reviewed the budget adjustments for Rural Transit. Jewell Echelbarger explained the changes. They are taking out their entire FTA 5311 capital. They dropped their JARC

5316 grant. Tom Micuda moved approval (provided staff can work with RT to get the numbers lined up for Policy Committee), Jane Fleig seconded. The motion was approved by unanimous vote to support this request.

B. Operational Bylaws Amendment
Recommendation Requested

Raymond Hess explained that recently it was noticed that the bylaws still stated that the TAC and the Policy Committee would still meet jointly on a bi-monthly basis. We have added language stating that these meetings are open to the public. Staff wanted to amend that both the CAC and the TAC could vote electronically if necessary. Language concerning CAC membership and voting procedures was standardized for consistency. There was discussion concerning deadlines for including information in packets. Mr. Micuda asked if they would like to consider lowering the quorum numbers. Jane Fleig thought that changing the meeting date and time might solve the problem of low attendance. Tom Micuda moved approval of the amendment, Jane Fleig seconded. The motion was approved by unanimous vote to support this request.

C. Highway Safety Improvement Program (HSIP) Call for Projects / Application Q & A
Raymond Hess noted that the application deadline is Nov. 3, 2008.

VIII. Communications from Committee Members (*non-agenda items*)

A. Topic Suggestions for future agendas

Andrea Roberts asked if they should consider updating the list of committee members. Mr. Hess said this has been discussed by staff. Josh Desmond suggested evaluating this after the new meeting dates take effect.

Upcoming Meetings

- A. Policy Committee – November 14, 2008 at 1:30pm (McCloskey Room)**
- B. Citizens Advisory Committee – November 19, 2008 at 6:30 p.m. (McCloskey Room)**
- C. Technical Advisory Committee – November 21, 2008 at 1:30pm (McCloskey Room)**

Adjournment

These minutes were _____ by the Technical Advisory Committee at their regular meeting held on November 21st, 2008 (SFR).

F.Y. 2009 Unified Planning Work Program First Quarter Progress Report July 1, 2008 – September 30, 2008

Executive Summary

The Bloomington/Monroe County Metropolitan Planning Organization (MPO) is charged with implementation of the Fiscal Year 2009-2010 Unified Planning Work Program (UPWP). The UPWP describes all planning activities that are anticipated in the MPO study area over the next programming year, and documents the work that will be performed with federal highway and transit planning funds. This progress report for the first quarter of the 2009 fiscal year covers activities accomplished between July 1 and September 30, 2008.

A notable accomplishment of the Bloomington/Monroe County Metropolitan Planning Organization was the completion and adoption of a Regional Intelligent Transportation System Architecture. This document, which was produced after extensive coordination with local stakeholders, identifies how technological solutions can improve the safety and efficiency of the transportation network. Another notable accomplishment of the MPO was the development of procedures to administer Highway Safety Improvement Program (HSIP) funding. The purpose of the HSIP program is to mitigate high crash intersections and segments of roads using appropriate and cost-effective treatments. The local procedures were developed following guidance from Federal Legislation and the Indiana Department of Transportation.

The MPO continued its commitment to engage the community through various committees and through the dissemination of information. MPO staff coordinated meetings of the Policy Committee, the Technical Advisory Committee, the Citizens Advisory Committee, and the Safe Routes to School Task Force. Additionally, MPO staff regularly participated in meetings of the Bloomington Bicycle and Pedestrian Safety Committee, the Monroe County Alternative Transportation and Greenways System Plan Technical Advisory Committee, City of Bloomington Projects Team meetings, and various other committees that are concerned with transportation planning in the MPO urbanized area.

MPO staff also performed core functions to ensure the continued operation of the MPO. Such tasks involved preparing quarterly billings for the fourth quarter of FY 2008 and providing project input and oversight.

Contract service agencies of the MPO provided invaluable services as well. Bloomington's Engineering Department conducted routine traffic counts, maintained permanent traffic count stations, analyzed and recorded road pavement conditions, and conducted work on the City's 10 year pavement schedule. The Monroe County Highways Department collected traffic counts. The Town of Ellettsville performed traffic counts as well as work on pavement management. Bloomington Transit collected rider surveys and with the assistance of a consultant continued work on the Transit Development Program.

F.Y. 2009 Unified Planning Work Program First Quarter Progress Report July 1, 2008 – September 30, 2008

Work Program Elements

#101 - Transportation Planning Coordination

This element includes activities associated with administering the MPO Policy Committee, the MPO Technical Advisory Committee, and daily MPO administrative activities with the Federal Highway Administration (FHWA) and the Indiana Department of Transportation (INDOT). Additionally, the MPO must develop and administer the Unified Planning Work Program (UPWP) which describes all planning activities and documents that will be performed with federal planning monies and local matching funds over the course of the fiscal year. The MPO and its staff must also administer FHWA and Federal Transit Administration (FTA) grants associated with the FY 2008 UPWP. Lastly, MPO staff participates in monthly meetings of the statewide Indiana MPO Council.

During this quarter, the MPO accomplished the following tasks:

A. Intergovernmental Coordination:

- MPO staff coordinated Policy Committee meetings (minutes, packets, staff support at meetings):
 - September 12, 2008
- MPO staff coordinated Technical Advisory Committees (TAC) meetings (minutes, packets, staff support at meetings):
 - August 22, 2008
 - September 26, 2008
- The MPO administered and managed MPO staff
- MPO staff participated in the Chamber of Commerce's East/West Corridor Study Team
 - July 7, 2008
 - August 11, 2008
- MPO staff fostered interagency coordination with FHWA, INDOT, and local project partners
 - Continued coordination with INDOT concerning the State Road projects
 - SR 45 (Russell Rd. to Pete Ellis Dr.) Public Hearing (9/18/08)
 - Grant coordination
 - Surface Transportation Program (STP);
 - Transportation Enhancement (TE);
 - Highway Safety Improvement Program (HSIP)
 - Safe Routes To School (SRTS).

B. Unified Planning Work Program:

- No tasks were accomplished this quarter with the Unified Planning Work Program.

C. Planning Grant Administration

- MPO staff tracked the MPO's fiscal activities:
 - Tracked expenditures and receipts for the 4th quarter of F.Y. 2008 and the 1st quarter of F.Y. 2009.
 - Produced F.Y. 2008 4th Quarter Billings

D. Indiana Metropolitan Planning Organization Council

- MPO staff attended Indiana MPO Council Meetings:
 - July 24, 2008
 - August, 28, 2008

#102 - Training and Professional Development

This element includes activities to continue development of MPO staff expertise through the attendance and participation in transportation related courses, seminars, and conferences, as well as

the purchase of educational/reference materials, professional periodical subscriptions, and technical software training.

During this quarter, the MPO accomplished the following tasks:

- A. Staff Training, Education, and Technical Needs
 - MPO staff renewed annual TransCAD license (traffic modeling software)
 - MPO staff purchased supplies for the MPO Council

#103 - Public Participation Coordination

This element includes activities to solicit citizen input into the transportation planning process through monthly meetings of the Citizens Advisory Committee (CAC). Additionally, the MPO is to maintain a website so that citizens, businesses, and other interested parties can download reports, data, updates, and other information related to the functions of the MPO. Lastly, the MPO must keep current its Public Participation Plan and the associated Citizens Guide to Transportation Planning so that citizens can become familiar with the workings of MPO activities, contacts, and resources.

During this quarter, the MPO accomplished the following tasks:

- A. Citizens Advisory Committee:
 - MPO staff coordinated Citizens Advisory Committee Meetings (minutes, packets, staff support at meetings):
 - August 27, 2008
 - September 24, 2008
- B. Web Site Administration
 - MPO staff managed the MPO web page
 - Posted materials related to MPO Committees (PC, TAC, CAC) meetings, agendas, and packets
 - Maintained the MPO , Policy/Advisory Committees , transportation planning, and bicycle & pedestrian planning webpages
 - Posted plans and documents on the MPO's webpage as well as the documents clearinghouse webpage
- C. Public Involvement Process
 - No tasks were accomplished this quarter with the Public Participation Plan

#201 - Transportation Improvement Program

This element includes activities to develop a Transportation Improvement Program (TIP) pursuant to U.S. Department of Transportation requirements which details all federal-aid projects. The MPO is now responsible for administering a local Highway Safety Improvement Program. Staff also attends monthly meetings with representatives from various City of Bloomington departments for transportation project management coordination.

During this quarter, the MPO accomplished the following tasks:

- A. Transportation Improvement Program
 - The MPO amended the FY 2009-2012 TIP on September 12, 2008 to include INDOT's SR 45 intersection improvement project at Liberty Dr.
- B. Highway Safety Improvement Program (HSIP)
 - The MPO drafted and adopted (9/12/08) project selection procedures for the HSIP program
 - The MPO issued a call for projects on September 22, 2008
- C. Project Coordination
 - MPO staff attended monthly meetings of the City of Bloomington's Projects Team
 - July 17, 2008
 - August 21, 2008
 - September 18, 2008

#202 – Short-Range Transportation Studies

This element includes special studies to be conducted by the MPO and its project partners, often with the assistance of a consultant. Specifically, the MPO will work with IU and the City of Bloomington to conduct a North Campus Area Study to evaluate current and future transportation conditions for all modes of travel and make recommendations for improvements that would address mobility issues along the 10th Street corridor. The MPO will also work with the City to complete the West 2nd Street Feasibility Study to address traffic congestion, access management, and lack of alternative transportation facilities along this corridor. Lastly, the Citizens Advisory Committee will submit project ideas to a student design team from Rose-Hulman Institute of Technology or Ball State University to address a transportation issue.

During this quarter, the MPO with the help of its contract service agencies accomplished the following tasks:

- A. North Campus Area Study
 - MPO staff began coordination between the University, City, and MPO
- B. West 2nd Street Feasibility Study
 - No tasks were accomplished this quarter with the 2nd Street Feasibility Study
- C. CAC/Student Assisted Study
 - MPO staff began coordination between the CAC and Ball State which resulted in project proposal submittal to Ball State

#301 – Long Range Transportation Plan

This element includes activities to update the Long Range Transportation Plan and the associated Travel Demand Model. Additionally, this element includes activities to develop and maintain a Regional Intelligent Transportation Systems Architecture in order to identify technological solutions to improve the safety and efficiency of the transportation network.

During this quarter, the MPO accomplished the following tasks:

- A. 2035 Long Range Transportation Plan (LRTP)
 - No tasks were accomplished this quarter with the LRTP.
- B. ITS Architecture Maintenance
 - The MPO drafted and adopted (9/12/08) a Regional Intelligent Transportation Systems Architecture after extensive coordination with local stakeholders.
 - ITS stakeholder meeting (9/3/08)

#401 - Vehicular Data Collection

This element includes activities to conduct vehicular volume counts within the Metropolitan Planning Area for arterial and collector streets on a rotational cycle. To standardize how this work will be done, the MPO plans to update its Traffic Counting Manual. Traffic counts will be conducted with assistance from the Bloomington Public Works Department, and the Town of Ellettsville Planning Department so that the MPO's functionally classified roadway network is covered. Additionally, the MPO will produce an annual crash report in an effort to identify potentially hazardous intersections and corridors.

During this quarter, the MPO through the help of its contract service agencies accomplished the following tasks:

- A. Traffic Volume Counting
 - The City of Bloomington Engineering Department conducted thirty-seven traffic counts.
 - The MPO and City of Bloomington continued to support nine permanent traffic volume counting stations, including phone and electricity costs.
- B. Annual Crash Report
 - MPO staff downloaded crash data from State's Automated Reporting Information Exchange System (ARIES) and began analysis for development of the 2007 Crash Report.

#402 - Infrastructure Management

This element includes activities to perform work necessary to develop and maintain a comprehensive infrastructure management plan, with particular emphasis on pavement management. Ongoing assessment of current conditions for existing and new infrastructure is performed and recorded with assistance from the Monroe County Highways Department, Bloomington Public Works Department, and the Town of Ellettsville Planning Department.

During this quarter, the MPO through the help of its contract service agencies accomplished the following tasks:

A. Infrastructure Management Plan

- The Monroe County Highways Department entered data and analyzed segments as part of infrastructure management.
- The City of Bloomington Engineering Department renewed its Cartegraph licensing contract.
- The Town of Ellettsville setup its database and collected data.

#501 - Transit, Bicycle, and Pedestrian Data Collection

This element includes activities to prepare transit ridership data and bicycle and pedestrian volume counts. This information will aid in establishing annual passenger mile estimates for mass transit, will aid in estimating facilities that are under or over utilized, and will aid in the prioritization of capital improvements.

During this quarter, the MPO with the help of its contract service partners accomplished the following tasks:

A. Transit Ridership and Bicycle/Pedestrian Data Collection

- Bloomington Transit conducted surveys and transit data collection.
- MPO staff conducted research on bicycle count infrastructure and conducted pedestrian trial counts.
- MPO staff worked with the City's Sidewalk Committee on the sidewalk inventory
- MPO staff developed a pedestrian level-of-service methodology to assess the 'walkability' of a particular location

#502 - Short Range Alternative Transportation Studies

This element includes activities to coordinate the Safe Routes to School Task (SRTS) Force so that local stakeholders can work cooperatively to generate project ideas and apply for SRTS funding. Additionally, MPO staff will promote and encourage bicycle and pedestrian activities as viable modes of transportation through continued cooperation with the Bicycle and Pedestrian Safety Commission. MPO staff will also host bicycle skills and safety training seminars for the public. Lastly, Bloomington Transit with the assistance of a private consultant will continue work on a new Transit Development Program (TDP) which will comprehensively analyze the operations of Bloomington Transit and provide recommendations for future improvements to transit.

During this quarter, the MPO with the help of its contract service partners accomplished the following tasks:

A. Safe Routes to School (SRTS) Program

- MPO staff coordinated SRTS Task Force and subcommittee meetings (minutes, packets, &/or staff support):
 - July 2, 2008
 - September 17, 2008

B. Bicycle and Pedestrian Project Coordination

- MPO staff attended meetings and workshops of the Bicycle and Pedestrian Safety Commission:
 - July 7, 2008 (workshop)
 - July 21, 2008 (meeting)
 - August 4, 2008 (workshop)
 - August 18, 2008 (meeting)
 - September 15, 2008 (meeting)
- MPO staff attended meetings of the Monroe County Alternative Transportation Technical Advisory Committee:
 - July 28, 2008
 - August 25, 2008

C. LCI Training Program

- MPO staff conducted bicycle safety sensibilizations
 - ~200 elementary school children at Summit Elementary (7/25/08)
 - ~175 graduate students at Indiana University (8/27/08)

D. Transit Development Program (TDP)

- Bloomington Transit and its consultant continued work on the Transit Development Program

#503 - Long Range Alternative Transportation Programs

This element includes activities to continue implementation of the SR37/I-69 Alternative Transportation Corridor Study which was produced in FY 2007 and provided design recommendations for bicycle and pedestrian facilities for interchanges and overpasses. Additionally, the MPO must maintain the locally developed Coordinated Human Services Public Transportation Plan and evaluate how transit projects serve the needs of the elderly, persons with disabilities, and persons with low income.

During this quarter, the MPO accomplished the following tasks:

A. Alternative Transportation Corridor Study

- No tasks were accomplished this quarter with the Alternative Transportation Corridor Study.

B. Coordinated Human Services Public Transit Plan

- A meeting of the Mobility Steering Committee was held to review New Freedom and Job Access & Reverse Commute grant applications (9/10/08). The meeting was followed by a webinar on vouchers programs for transit.



**Bloomington/Monroe County Metropolitan Planning Organization
F.Y. 2008 UPWP - Task# Budget Status**

Financial Status Report: Fiscal Year 2008

Quarterly Spending Summary												
Quarter	Q1 / FY 2009			Q2 / FY 2009			Q3 / FY 2009			Q4 / FY 2009		
Period	07/01/2008 - 09/30/2008						01/01/2009 - 03/31/2009			04/01/2009 - 06/30/2009		
Element #	Local	PL/FTA	Total			Total	Local	PL/FTA	Total	Local	PL/FTA	Total
101	\$ 4,607.92	\$ 18,431.66	\$ 23,039.58			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
102	\$ 227.22	\$ 908.87	\$ 1,136.09			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
103	\$ 758.03	\$ 3,032.12	\$ 3,790.15			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
201	\$ 432.62	\$ 1,730.47	\$ 2,163.09			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
202	\$ 69.06	\$ 276.23	\$ 345.29			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
301	\$ 938.76	\$ 3,755.04	\$ 4,693.80			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
401	\$ 1,960.14	\$ 7,840.58	\$ 9,800.72			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
402	\$ 3,195.02	\$ 12,780.09	\$ 15,975.11			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
501	\$ 430.30	\$ 1,721.20	\$ 2,151.50			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
502	\$ 3,199.00	\$ 12,796.00	\$ 15,995.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
503	\$ 100.34	\$ 401.38	\$ 501.72			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ 15,918.41	\$ 63,673.63	\$ 79,592.04	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Fiscal Year Budget Summary											
	Programmed Funds			Funds Expended To Date			Unspent Funds			Total Expenditures Ratio	
Element #	Local	PL/FTA	Total	Local	PL/FTA	Total	Local	PL/FTA	Total	Expended	Unspent
101	\$ 13,407.00	\$ 53,628.00	\$ 67,035.00	\$ 4,607.92	\$ 18,431.66	\$ 23,039.58	\$ 8,799.08	\$ 35,196.34	\$ 43,995.42	34.4%	65.6%
102	\$ 2,500.00	\$ 10,000.00	\$ 12,500.00	\$ 227.22	\$ 908.87	\$ 1,136.09	\$ 2,272.78	\$ 9,091.13	\$ 11,363.91	9.1%	90.9%
103	\$ 5,000.00	\$ 20,000.00	\$ 25,000.00	\$ 758.03	\$ 3,032.12	\$ 3,790.15	\$ 4,241.97	\$ 16,967.88	\$ 21,209.85	15.2%	84.8%
201	\$ 4,600.00	\$ 18,400.00	\$ 23,000.00	\$ 432.62	\$ 1,730.47	\$ 2,163.09	\$ 4,167.38	\$ 16,669.53	\$ 20,836.91	9.4%	90.6%
202	\$ 26,500.00	\$ 106,000.00	\$ 132,500.00	\$ 69.06	\$ 276.23	\$ 345.29	\$ 26,430.94	\$ 105,723.77	\$ 132,154.71	0.3%	99.7%
301	\$ 27,900.00	\$ 111,600.00	\$ 139,500.00	\$ 938.76	\$ 3,755.04	\$ 4,693.80	\$ 26,961.24	\$ 107,844.96	\$ 134,806.20	3.4%	96.6%
401	\$ 11,700.00	\$ 46,800.00	\$ 58,500.00	\$ 1,960.14	\$ 7,840.58	\$ 9,800.72	\$ 9,739.86	\$ 38,959.42	\$ 48,699.28	16.8%	83.2%
402	\$ 10,400.00	\$ 41,600.00	\$ 52,000.00	\$ 3,195.02	\$ 12,780.09	\$ 15,975.11	\$ 7,204.98	\$ 28,819.91	\$ 36,024.89	30.7%	69.3%
501	\$ 2,000.00	\$ 8,000.00	\$ 10,000.00	\$ 430.30	\$ 1,721.20	\$ 2,151.50	\$ 1,569.70	\$ 6,278.80	\$ 7,848.50	21.5%	78.5%
502	\$ 8,250.00	\$ 33,000.00	\$ 41,250.00	\$ 3,199.00	\$ 12,796.00	\$ 15,995.00	\$ 5,051.00	\$ 20,204.00	\$ 25,255.00	38.8%	61.2%
503	\$ 2,140.00	\$ 8,560.00	\$ 10,700.00	\$ 100.34	\$ 401.38	\$ 501.72	\$ 2,039.66	\$ 8,158.62	\$ 10,198.28	4.7%	95.3%
Total	\$ 114,397.00	\$ 457,588.00	\$ 571,985.00	\$ 15,918.41	\$ 63,673.63	\$ 79,592.04	\$ 98,478.59	\$ 393,914.37	\$ 492,392.96	13.9%	86.1%



**Bloomington/Monroe County Metropolitan Planning Organization
F.Y. 2008 UPWP - Task# Breakdown of Services**

Breakdown of Services

		Programmed Funds		Funds Expended To Date			Funds Expended 1st Quarter		
Work Element		Local	PL/FTA	Local	PL/FTA	%	Local	PL/FTA	%
101	Transportation Planning Coordination	\$ 13,407.00	\$ 53,628.00			0.0%	\$ 4,607.92	\$ 18,431.66	34.4%
102	Training & Professional Development	\$ 2,500.00	\$ 10,000.00			0.0%	\$ 227.22	\$ 908.87	9.1%
103	Public Participation Coordination	\$ 5,000.00	\$ 20,000.00			0.0%	\$ 758.03	\$ 3,032.12	15.2%
201	Transportation Improvement Program	\$ 4,600.00	\$ 18,400.00			0.0%	\$ 432.62	\$ 1,730.47	9.4%
202	Short Range Transportation Studies	\$ 26,500.00	\$ 106,000.00			0.0%	\$ 69.06	\$ 276.23	0.3%
301	Long Range Transportation Plan	\$ 27,900.00	\$ 111,600.00			0.0%	\$ 938.76	\$ 3,755.04	3.4%
401	Vehicular Data Collection	\$ 11,700.00	\$ 46,800.00			0.0%	\$ 1,960.14	\$ 7,840.58	16.8%
402	Infrastructure Management	\$ 10,400.00	\$ 41,600.00			0.0%	\$ 3,195.02	\$ 12,780.09	30.7%
501	Transit, Bicycle & Pedestrian Data Collection	\$ 2,000.00	\$ 8,000.00			0.0%	\$ 430.30	\$ 1,721.20	21.5%
502	Short Range Alternative Transportation Studies	\$ 8,250.00	\$ 33,000.00			0.0%	\$ 3,199.00	\$ 12,796.00	38.8%
503	Long Range Alternative Transportaton Program	\$ 2,140.00	\$ 8,560.00			0.0%	\$ 100.34	\$ 401.38	4.7%
SUBTOTAL		\$ 114,397.00	\$ 457,588.00	\$ -	\$ -	0.0%	\$ 15,918.41	\$ 63,673.63	13.9%
LESS AMOUNT PREVIOUSLY BILLED									
TOTAL DUE THIS INVOICE				\$ 15,918.41	\$ 63,673.63				

**Bloomington/Monroe County Metropolitan Planning Organization
F.Y. 2008 UPWP**

Monroe County

WORK ELEMENT	PROGRAMMED AMOUNT			SPENT AMOUNT			REMAINING BALANCE			EXPENDITURES	
	PL/FTA	Local	Total	PL/FTA	Local	Total	PL/FTA	Local	Total	Spent	Unspent
402	\$ 8,800.00	\$ 2,200.00	\$ 11,000.00	\$ 1,962.70	\$ 490.68	\$ 2,453.38	\$ 6,837.30	\$ 1,709.32	\$ 8,546.62	22.3%	77.7%
TOTALS	\$ 8,800.00	\$ 2,200.00	\$ 11,000.00	\$ 1,962.70	\$ 490.68	\$ 2,453.38	\$ 6,837.30	\$ 1,709.32	\$ 8,546.62	22.3%	77.7%

Bloomington

WORK ELEMENT	PROGRAMMED AMOUNT			SPENT AMOUNT			REMAINING BALANCE			EXPENDITURES	
	PL/FTA	Local	Total	PL/FTA	Local	Total	PL/FTA	Local	Total	Spent	Unspent
202	\$ 8,000.00	\$ 2,000.00	\$ 10,000.00	\$ -	\$ -	\$ -	\$ 8,000.00	\$ 2,000.00	\$ 10,000.00	0.0%	100.0%
401	\$ 26,400.00	\$ 6,600.00	\$ 33,000.00	\$ 4,255.63	\$ 1,063.91	\$ 5,319.54	\$ 22,144.37	\$ 5,536.09	\$ 27,680.46	16.1%	83.9%
402	\$ 8,800.00	\$ 2,200.00	\$ 11,000.00	\$ 10,400.00	\$ 2,600.00	\$ 13,000.00	\$ (1,600.00)	\$ (400.00)	\$ (2,000.00)	118.2%	-18.2%
TOTALS	\$ 43,200.00	\$ 10,800.00	\$ 54,000.00	\$ 14,655.63	\$ 3,663.91	\$ 18,319.54	\$ 28,544.37	\$ 7,136.09	\$ 35,680.46	33.9%	66.1%

Ellettsville

WORK ELEMENT	PROGRAMMED AMOUNT			SPENT AMOUNT			REMAINING BALANCE			EXPENDITURES	
	PL/FTA	Local	Total	PL/FTA	Local	Total	PL/FTA	Local	Total	Spent	Unspent
401	\$ 3,200.00	\$ 800.00	\$ 4,000.00	\$ -	\$ -	\$ -	\$ 3,200.00	\$ 800.00	\$ 4,000.00	0.0%	100.0%
402	\$ 3,200.00	\$ 800.00	\$ 4,000.00	\$ 417.38	\$ 104.35	\$ 521.73	\$ 2,782.62	\$ 695.65	\$ 3,478.27	13.0%	87.0%
TOTALS	\$ 6,400.00	\$ 1,600.00	\$ 8,000.00	\$ 417.38	\$ 104.35	\$ 521.73	\$ 5,982.62	\$ 1,495.65	\$ 7,478.27	6.5%	93.5%

Bloomington Transit

WORK ELEMENT	PROGRAMMED AMOUNT			SPENT AMOUNT			REMAINING BALANCE			EXPENDITURES	
	PL/FTA	Local	Total	PL/FTA	Local	Total	PL/FTA	Local	Total	Spent	Unspent
501	\$ 1,600.00	\$ 400.00	\$ 2,000.00	\$ 841.22	\$ 210.31	\$ 1,051.53	\$ 758.78	\$ 189.69	\$ 948.47	52.6%	47.4%
502	\$ 20,000.00	\$ 5,000.00	\$ 25,000.00	\$ 7,542.79	\$ 1,885.70	\$ 9,428.49	\$ 12,457.21	\$ 3,114.30	\$ 15,571.51	37.7%	62.3%
TOTALS	\$ 21,600.00	\$ 5,400.00	\$ 27,000.00	\$ 8,384.02	\$ 2,096.00	\$ 10,480.02	\$ 13,215.98	\$ 3,304.00	\$ 16,519.98	38.8%	61.2%

Indiana University

WORK ELEMENT	PROGRAMMED AMOUNT			SPENT AMOUNT			REMAINING BALANCE			EXPENDITURES	
	PL/FTA	Local	Total	PL/FTA	Local	Total	PL/FTA	Local	Total	Spent	Unspent
202	\$ 15,000.00	\$ 60,000.00	\$ 75,000.00	\$ -	\$ -	\$ -	\$ 15,000.00	\$ 60,000.00	\$ 75,000.00	0.0%	100.0%
TOTALS	\$ 15,000.00	\$ 60,000.00	\$ 75,000.00	\$ -	\$ -	\$ -	\$ 15,000.00	\$ 60,000.00	\$ 75,000.00	0.0%	100.0%



ADOPTION RESOLUTION FY 2009-0

RESOLUTION ADOPTING A COMPLETE STREETS POLICY as presented to the Policy Committee of the Bloomington/Monroe County Metropolitan Planning Organization (BMCMPPO) on _____, 2009.

WHEREAS, the Bloomington/Monroe County Metropolitan Planning Organization (BMCMPPO) is the organization designated by the Governor of Indiana as the Metropolitan Planning Organization responsible for carrying out, with the State of Indiana, the provisions of 23 U.S.C. 134, and capable of meeting the requirements thereof for the Bloomington, Indiana urbanized area; and

WHEREAS, it is the intent of the Bloomington/Monroe County Metropolitan Planning Organization to establish a Complete Streets Policy so that all roads will be designed and built to accommodate all users of a corridor including pedestrians, bicyclists, users of mass transit, people with disabilities, the elderly, motorists, freight providers, emergency responders, and adjacent land users; and

WHEREAS, the Bloomington/Monroe County Metropolitan Planning Organization has prioritized development of a truly multi-modal system in the Vision Statement of the Long Range Transportation Plan; and

WHEREAS, the Bloomington/Monroe County Metropolitan Planning Organization's Transportation Improvement Program identifies implementation of capital improvements in the urbanized area; and

WHEREAS, the civic guidance of the Citizens Advisory Committee and the technical expertise of the Technical Advisory Committee can ensure that investment in transportation infrastructure addresses the needs of all users of a corridor.

NOW, THEREFORE, BE IT RESOLVED:

- (1) That the Bloomington/Monroe County Metropolitan Planning Organization hereby adopts the Complete Streets Policy herein attached; and
- (2) That the adopted policy shall be forwarded to all relevant public officials and government agencies, and shall be available for public inspection during regular business hours at the City of Bloomington Planning Department, located in the Showers Center City Hall at 401 North Morton Street, Bloomington, Indiana.

PASSED AND ADOPTED by the Policy Committee by a vote of ____-____, upon this ____ day of _____, 2009.

Chair, Policy Committee
Bloomington/Monroe County MPO

Attest: Josh Desmond
Director
Bloomington/Monroe County MPO

Draft Complete Streets Policy
November 12, 2008(version 5)

I: Purpose

This Complete Streets Policy is written to empower and direct citizens, elected officials, government agencies, planners, engineers, and architects to use an interdisciplinary approach to incorporate the needs of all users into the design and construction of roadway projects funded through Bloomington and Monroe County Metropolitan Planning Organization.

The Complete Streets¹ concept is an initiative to design and build roads that adequately accommodate all users of a corridor, including pedestrians, bicyclists, users of mass transit, people with disabilities, the elderly, motorists, freight providers, emergency responders, and adjacent land users. This concept dictates that appropriate accommodation(s) be made so that all modes of transportation can function safely and independently in current and future conditions. A Complete Streets policy can be adapted to fit local community needs and used to direct future transportation planning. Such a policy should incorporate community values and qualities including environment, scenic, aesthetic, historic and natural resources, as well as safety and mobility. This approach demands careful multi-modal evaluation for all transportation corridors integrated with best management strategies for land use and transportation.

(A) Goals: The goals of this Complete Streets Policy are:

- 1) To ensure that the safety and convenience of all users of the transportation system are accommodated, including pedestrians, bicyclists, users of mass transit, people with disabilities, the elderly, motorists, freight providers, emergency responders, and adjacent land users;
- 2) To incorporate the principles in this policy into all aspects of the transportation project development process, including project identification, scoping procedures and design approvals, as well as design manuals and performance measures;
- 3) To create a comprehensive, integrated, and connected transportation network that supports compact, sustainable development;
- 4) To ensure the use of the latest and best design standards, policies and guidelines;
- 5) To recognize the need for flexibility to accommodate different types of streets and users;
- 6) To ensure that the Complete Streets design solutions fit within the context(s) of the community.

II: Policy

(A) Applicability: The Complete Streets Policy shall apply to all of the following:

- 1) New construction and reconstruction (excluding resurfacing activities that do not alter the current/existing geometric designs of a roadway) of local roadways that will use Federal funds through the BMCMPPO for **any** phase of

project implementation including planning, design, right-of-way acquisition, construction, or construction engineering.

- 2) Local roadway projects included in the TIP after the adoption of the Complete Streets Policy AND are not past the Preliminary Field Check Phase or more than 30% complete with design at the time this policy is adopted.
- 3) Local roadway projects where the BMCMPPO has the programming authority to allocate Federal funding.

(B) Requirements:

- 1) Roadway projects shall accommodate all users of the transportation system, including pedestrians, bicyclists, users of mass transit, people with disabilities, the elderly, motorists, freight providers, emergency responders, and adjacent land users.
- 2) Roadway projects shall make use of the latest and best design standards, policies, and guidelines. The LPA shall also retain the justification and design decision authority over its projects.
- 3) Complete Streets solutions shall be developed to fit within the context(s) of the community and those solutions shall be flexible so that the needs of the corridor can be met.
- 4) Roadway projects shall utilize performance standards with measurable outcomes.
- 5) Roadway projects shall identify anticipated phases and key milestones of project development.
- 6) The LPA shall identify a public participation process including benchmark goals to attain as part of their public participation process.
- 7) The LPA shall maintain open lines of communication with key party/agency/interest groups and shall identify and maintain a key stakeholder list.

III: Process

(A) Call for Projects: The BMCMPPO shall issue an annual Call for Projects for any roadway project that seeks to use federal funding and to be programmed in the Transportation Improvement Program. The Local Public Agency (LPA) shall submit a Project Description with the following information to the BMCMPPO:

- 1) a detailed project description (e.g. project scope, reconstruction/new construction, vehicular elements, non-vehicular elements);
- 2) the intent for the project to be Complete Streets Compliant or to seek a Complete Streets Exemption;
- 3) the performance standards and measurable outcomes;
- 4) project phases and key milestones ;
- 5) anticipated costs for design, rights-of-way acquisition, construction, and construction inspection;
- 6) amount of federal funding requested by phase (e.g. preliminary engineering, rights of way, construction, construction inspection);
- 7) anticipated dates for project design initiation and construction letting;

- 8) the public participation process with benchmark goals to attain;
- 9) the project stakeholder list or key party/agency/interest group identification list; and
- 10) the primary contact or project representative information.

If certain information required above is not yet known at the time of the Project Description submittal, the LPA shall provide general details on the required submittal information, but shall state, "specific information has not yet been determined". Additionally, if the roadway project is programmed into the TIP, the LPA shall update the BMCMPPO as part of its regular reporting and notify any changes to the project description.

(B) Project Review and Approval: Project Description(s) will be reviewed by the Citizens Advisory Committee and the Technical Advisory Committee prior to being submitted to the Policy Committee for their consideration to adopt into the TIP. The Policy Committee shall certify by resolution that relevant projects identified in the TIP are Complete Streets compliant unless a project receives an exemption under unusual and extraordinary circumstances. Roadway projects listed in the TIP shall clearly be identified as Complete Streets Compliant or Complete Streets Exempt.

(C) LPA Reporting: Once a project is programmed into the adopted TIP, the Local Public Agency shall fulfill the scope of work as detailed in the approved Project Description. The LPA shall submit written status reports to the BMCMPPO to be included in the meeting packets of the Citizens Advisory Committee, Technical Advisory Committee, and Policy Committee at a minimum of two times a year. The status report shall include a summary of issues identified, significant accomplishments since the initial Project Description submittal or last status report, new details on project implementation, and the preferred design solutions as they pertain to fulfilling the project parameters detailed by the Project Description.

(D) Project Description Change: The LPA shall report to the BMCMPPO immediately if a significant change to the roadway project is warranted, especially any change that affects the project's accommodations for one of the users of the corridor. The Policy Committee will review the requested change(s) to the project and determine if the change(s) affects the intent (as detailed by the most recently approved Project Description) to be Complete Streets compliant, Complete Streets exempt, or Complete Streets noncompliant. If the changes significantly affect the intent the Policy Committee shall certify a revised Project Description and determine the roadway project's standing to be Complete Streets compliant or Complete Streets exempt. If a capital roadway project is determined to be Complete Streets noncompliant the Policy Committee shall consider removing the project from the Transportation Improvement Program until such time that the project can be brought back into compliance with the Complete Streets Policy. If the changes do not significantly affect the intent then no action by the Policy Committee is required.

IV: Exemption

(A) Complete Streets Exemption: The BMCMPO Policy Committee shall certify through resolution that justification exists for a roadway project to be exempted from any of the following requirements listed in section **II Policy, (B) Requirements: B1 through B4**. The Policy Committee may allow such an exemption under certain circumstances, including the following:

- 1) Ordinary maintenance activities designed to keep assets in serviceable condition (e.g. mowing, cleaning, sweeping, spot repair, and regular/seasonal maintenance);
- 2) The project involves a roadway that bicyclists and pedestrians are prohibited by law from using. In such case, efforts should be made to accommodate bicyclists and pedestrians elsewhere;
- 3) There are extreme topographic or natural resource constraints;
- 4) The Long Range Transportation Plan's 20-or-more year Average Daily Traffic projection is less than 1000 vehicles per day;
- 5) When other available means or factors indicate an absence of need presently and in the 20-or-more year horizon;
- 6) A reasonable and equivalent alternative already exists for certain users or is programmed in the TIP as a separate project;
- 7) The project is not a roadway improvement project and/or over which the Bloomington/Monroe County Metropolitan Planning Organization has programming authority (e.g. State, Bloomington Transit, Rural Transit, and other projects).

V: Evaluation

The BMCMPO shall, at a minimum, evaluate this policy prior to the adoption of the Long Range Transportation Plan. This evaluation shall include recommendations for amendments to the Complete Streets Policy and subsequently be considered by the Citizens Advisory Committee, Technical Advisory Committee and Policy Committee. Recommendations for amendments shall be distributed to the Local Public Agencies prior to consideration by the BMCMPO Committees.

¹ Additional information on Complete Streets is available through the following resources:

National Complete Streets Coalition <http://www.completestreets.org/>

The American Planning Association - <http://www.planning.org/research/streets/index.htm>

MEMORANDUM

To: MPO Technical Advisory Committee Members

From: Raymond Hess, AICP
Senior Transportation Planner

Date: November 12, 2008

Re: Railroad Crossing Resolution

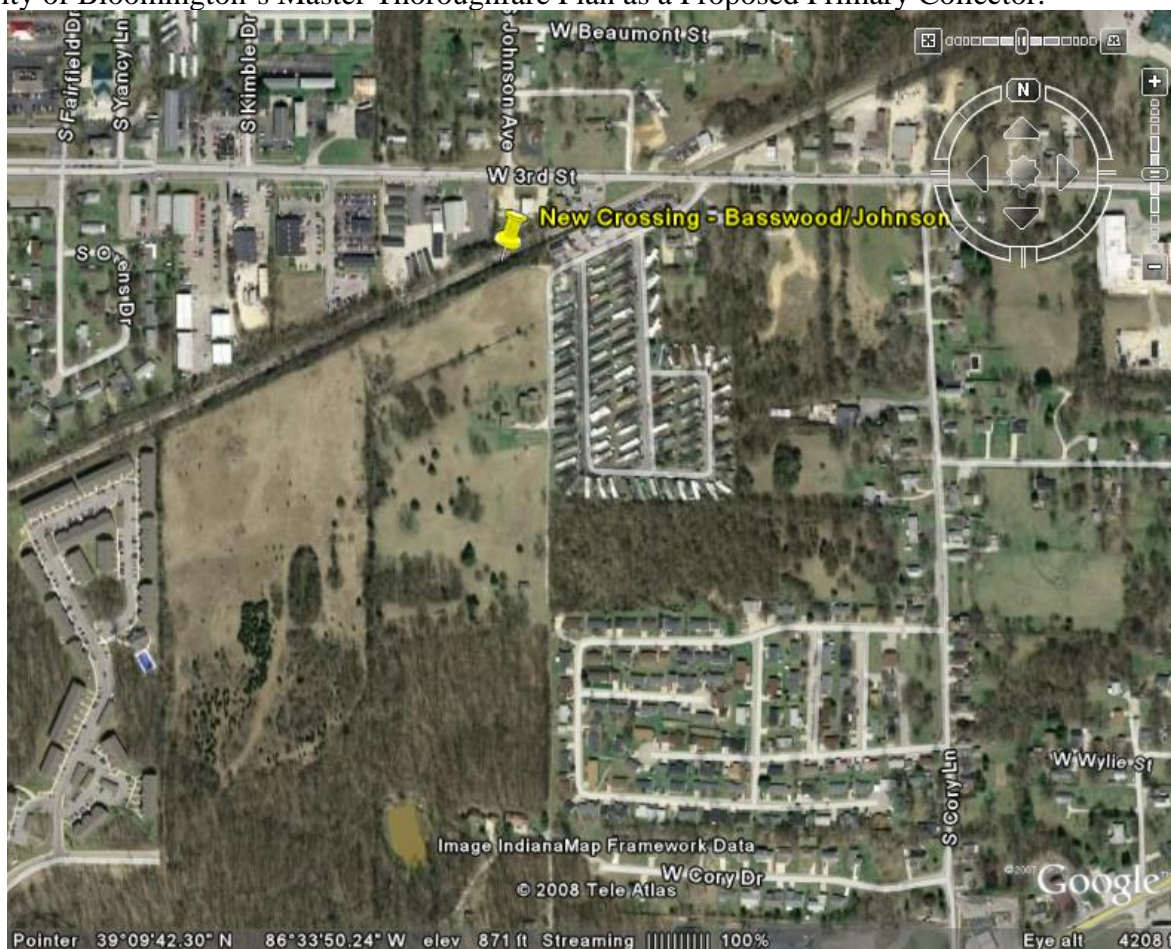
Background

It is often difficult to establish new at-grade railroad crossings. This is due in large part to the railroad company wishing to protect its assets and minimize its liability by keeping the number of conflict points between locomotives and motor vehicles to a minimum.

The City of Bloomington and Indiana University have expressed interest in creating new at-grade railroad crossings. The BMCMPPO has no real jurisdiction over the railroad companies since they own and maintain their own right-of-way. However, both the City and the University have asked for the BMCMPPO's support of their proposed crossings in an effort to show local support.

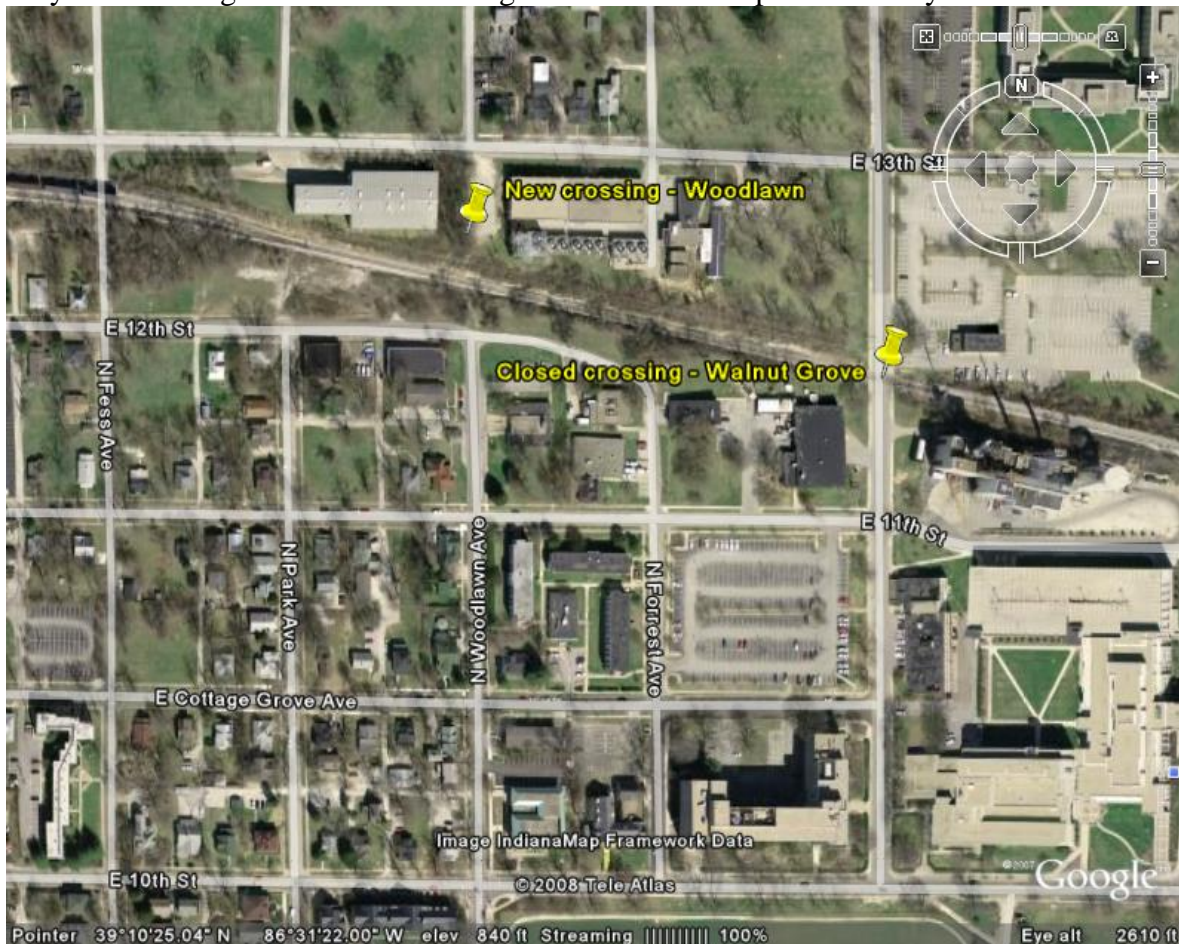
City of Bloomington proposed crossing

The City of Bloomington wishes to establish a new at-grade railroad crossing at S. Johnson Avenue (south of W. 3rd Street and north of the Basswood Drive extension). This connection is supported in the City of Bloomington's Master Thoroughfare Plan as a Proposed Primary Collector.



Indiana University

Indiana University is currently in the midst of updating the master plan for the Bloomington campus. As a result of these efforts, IU proposes to close the crossing at Walnut Grove and create a new crossing at Woodlawn Ave to better serve the community's interest. The new connection is supported in the City of Bloomington's Master Thoroughfare Plan as a Proposed Primary Collector



Recommendation Requested

The Technical Advisory Committee is requested to make a recommendation to the Policy Committee on whether or not the proposed crossings should be supported by the BMCMPPO.



FY 2009 HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP) APPLICATION

APPLICANT CONTACT INFORMATION

Local Public Agency (LPA) Name: City of Bloomington

Project Contact Name: Adrian Reid

E-mail Address: reida@bloomington.in.gov

Phone: 812-349-3417

Title: City Engineer

PROJECT INFORMATION

Location: Intersection of East Atwater Avenue and South Henderson Street in Bloomington, Indiana.

Is the project located within the Urbanized Area of the Bloomington Monroe County Metropolitan Planning Organization (BMCMPPO)?

YES ☒

NO ☐

If no, please contact BMCMPPO staff for additional information.

Is the project within, intersects, or adjoins an INDOT facility?

YES ☐

NO ☒

If yes, please contact BMCMPPO staff for additional information.

Is the project location listed as an eligible location as based upon the most recent published 3-year ARIES crash data (available from the BMCMPPO)?

YES ☒

NO ☐

If no, please contact BMCMPPO staff and include a memo that states the reasons for an appeal request to consider this location eligible for HSIP funding.

General Project Description: Intersection improvements and new traffic signal at Henderson & Atwater. Improvements include new sidewalks, storm water infrastructure, improved geometrics, and new signage.

ESTIMATED COSTS AND FUNDING REQUEST

Total Project Costs (Design, ROW, Construction, Inspection Services): \$730,000 (2010 dollar amt.)

Design Costs: \$103,000.

ROW Costs: \$55,125.

Construction Costs: \$571,875.

Total Local Match ($\geq 10\%$): \$62,700.

Benefit/Cost Ratio: **8.74**

Total HSIP Funding Request ($\leq 90\%$): \$564,300.

Anticipated Letting Date: August 2009

Project Status/Timeline Information:

Preliminary Field Check Plans have been submitted to INDOT. Public meeting has been conducted.

SUBMITTAL INFORMATION CHECKLIST

(PLEASE ATTACH THE FOLLOWING INFORMATION TO THE APPLICATION)

Detailed Narrative Project Description: ☒

Minimum Criteria – Crash (type and number) and Treatment Relationship: ☒

Minimum Criteria – Treatment Cost-Effectiveness: ☒

Minimum Criteria – Other Treatment Considerations: ☒

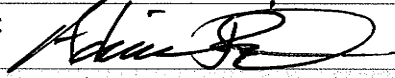
Benefit/Cost Ratio Worksheet: ☒

Data Collection Plan – A comprehensive 3-Year Pre and 3-Year Post Treatment Comparison: ☒

FY 2009 HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP) APPLICATION**SIGNATURES**

I authorize the BMCMPPO staff to use the information provided to be considered for HSIP funding by the Policy Committee of the BMCMPPO and affirm that it is true and correct to the best of my professional knowledge.

Signature of applicant:



Date: 10/30/08

Date application received by BMCMPPO staff:

BMCMPPO Staff Initials:

Last Revised: 9/22/08

HSIP Narrative Project Description

Project: Atwater Avenue at Henderson Street Intersection in the City of Bloomington, Indiana

Des. No.: 0800443

Date: October 30, 2008

Location and Project Description

Project area is approximately 700 feet in length along Atwater Avenue. Improvements extend from just south of 3rd Street to just east of Henderson Street (roadway is a one-way street and curves from southbound to eastbound in project limits).

The project also extends along Henderson Street approximately 400' in length, from 100' south of Atwater to approximately 300' north of Atwater. Henderson Street is one-way northbound.

This intersection is a critical node in Bloomington's roadway network, given that it is the intersection of two arterials that currently convey a combined average daily traffic of almost 18,000 vehicles. The intersection has been identified as a high accident location. It is also at the edge of Indiana University at the boundary between the campus and older residential neighborhoods with many student apartment and rental houses. The intersection is heavily traveled by pedestrians. The intersection was analyzed and found to meet signal warrants for both Accidents and for Pedestrian crossings.

The primary goal of the project is to improve safety by adding a new traffic signal. Traffic analyses were conducted to determine the best combination of signal timings, lane configurations, turn lane lengths, and other critical intersection features. The project is intended to incorporate all of related changes to allow the area to function safely and efficiently as a signalized intersection. Neither street has storm sewers in this area. They will be added with the project as an additional enhancement.

Lastly, the City wishes to take this opportunity to relocate and reconstruct a one-way connector to South Dunn Street that exits off the west side of Atwater Avenue just south of the 3rd/Dunn intersection. The existing connector is too close to 3rd Street and visitors to the area (thousands every year) are frequently seen making sudden choices and straying out of their intended lane. The existing connector is aligned to allow cars to exit Atwater at excessive speeds for the area. Relocation of this connector will include a narrowing of the pedestrian crossing in addition to slowing traffic.

In summary, the City expects to improve the safety at this intersection and its approaches by:

- Providing signalized traffic control at the intersection of Atwater / Henderson
- Improving sight distances for vehicles approaching and entering the intersection.
- Improving pedestrian crossing safety with pedestrian signal heads and actuation.
- Improving crosswalks by reducing crossing widths and providing modern ramps and refuges where appropriate.
- Improving sidewalks by increasing the separation from the curbs, widening sidewalks if possible, and by encouraging the use of designated crosswalks.
- Realigning connector roads to lower turning speeds, reduce pedestrian crossing distances, and to better align these streets for sight distance.
- Narrowing existing pavement where excess / mostly unused pavement is present.
- Providing and improving drainage where needed.

The improvement of sight distances is an important concern here. Recommendations include some tree thinning and grading for sight distance improvement. However, this strategy will be limited by the fact that the property inside the curve of Atwater is designated on the National Register of Historic Places. This structure and its surrounding property are considered significant local resources and their setting cannot be negatively impacted by roadway improvements. Solutions are limited to the available right of way alongside this property.

Alignment

No significant changes to the vertical profile or horizontal alignment of the roadways are proposed. The proposed roadway treatment will be an overlay treatment in most areas, with some variable depth overlay in normal crown sections where the cross slope has been found to be less than 2%. Widened areas shall be constructed to meet existing grades.

Proposed Lanes and Paved Width

Lane widths are to generally remain the same. The reconfiguration of turn lanes and connector drives will change these pavements, but only to relocate them, not to widen them. The net footprint of the project is a significant decrease in the total area under pavement. Sidewalks will be widened where possible and appropriate.

The desired roadway section includes a two-lane curbed urban arterial section with at least a 5' sidewalk on each side. Sidewalks are expected to be separated from the curb by a 5' tree plot wherever right of way will allow this separation. Assuming two 11' lanes, 2' curb and gutter, and the sidewalks, the total width of the improved typical section will generally be about 46'.

Roadside paved parking will not be allowed in the project area. No parking is allowed along either Atwater or Henderson at this time.

Right of Way

Based on GIS mapping, the existing right of way at the intersection appears to vary from a minimum 30' to a maximum 40' in width. Existing right of way is highly irregular along the curve of Atwater and in the northwest quadrant. Right of way is notably narrow to the south and east.

A small amount of permanent right of way is needed in the southeast, southwest and northeast corners of the intersection. This right of way is needed for turn lane and sidewalk/crosswalk work, and to establish appropriate intersection sight lines. Temporary right of way is needed to finish the slope and reconstruct a drive in the southeast quadrant. Existing roadway elevations will be maintained to minimize the need for right of way.

It is currently estimated that the project could impact as many as 5 parcels near the intersection. The estimated total permanent right of way needed for this project is less than 1/2 of an acre. Temporary right of way needed is estimated at less than 1/10th of an acre.

Sight Distance

Intersection sight distance standards will not be met by the project at the intersection of Atwater/Henderson. Due to the close proximity of the curve in Atwater, and the presence of a structure on the National Register of Historic Places inside this curve, we are very limited on clearing and grading activities that are allowed. The inclusion of the new traffic signal is seen as the primary strategy to mitigate the deficient intersection sight distance. Horizontal sight distance is not a concern in other areas.

The project will improve sight lines in all areas, even those which do not meet standards. Some trees will be removed, and new trees will not be planted in areas identified as critical to sight distance and general safety.

Vertical stopping sight distance standards will be met throughout the project area without any adjustments to the vertical alignments.

Preliminary Potential for Historic Resource Impacts:

Bloomington's Interim Report, Indiana Historic Sites and Structures Inventory (2001), indicates that the project area includes a portion of the Elm Heights Historic District. The most significant property in is in the northwest quadrant. This quadrant is occupied by the Legg House, which was individually placed on the National Register in 2001.

Because of these known cultural resources, full Section 106 Coordination is underway as part of the Environmental study and documentation. Potential Consulting Parties were contacted in accordance with normal procedures. Indiana University is the current owner of this property.

The importance of not taking any right of way from this property is being stressed with this project. This should be possible, given the intent to move the nearest roadway curb away from the property. It is a goal of the project to develop it in a manner that has No Adverse Effect on cultural resources.

Need for Improvement

A high number of accidents are occurring at the intersection of Atwater Avenue and Henderson Street. City Planning tracks accidents at intersections in the city. In their 2003 report, this intersection was identified as having the 10th highest accident rate per vehicle. The report also lists the intersection as the 3rd-most "Historically Significant Accident Location" for the years 1997-2002. More recent information (2003-2005) indicates that the accident rate continues.

From 3rd and Dunn Street, Atwater Avenue promptly rounds a curve, turning 90-degree from southbound to eastbound. Henderson is the first street encountered on Atwater, and it intersects at the location where the curve ends. The primary problem with the site is the curve of Atwater itself and the resulting deficiency in intersection sight distance. Impatient drivers on Henderson attempt to cross or turn with limited ability to estimate distances of oncoming cars. Drivers on Henderson Street have difficulty in anticipating gaps in traffic on Atwater whether they are intending to cross, or turn right to join eastbound traffic. Accidents are the result.

While accidents involving pedestrians or bicyclists are not known to have occurred recently, a recent Corridor Study uncovered several stories of "near-misses", frequently involving drivers turning right from Henderson to Atwater, and failing to yield to pedestrians who are crossing Atwater. The intersection has been found to meet pedestrian volume warrant for a signal. Many pedestrians, especially students, chose to dash across at mid-block to the west, where sight distances around the curve are better, but the timing from oncoming cars is significantly less.

The curve in Atwater, combined with obstructions such as trees in the right of way near a bordering historic property, causes a deficiency in intersection sight distance. Cars coming around this curve are frequently traveling at approximately 25 or more miles per hour. The Indiana Design Manual suggests that 240' of ISD is needed. The site provides approximately 220' of sight distance. This is not grossly inadequate, but because it is at the intersection of two arterials with a combined ADT of over 15,000 VPD, the problems are magnified. The high pedestrian counts provide an additional distraction for the many drivers approaching the intersection.

A recent safety analysis identified the Atwater /Henderson Intersection as a prime candidate for a signalization upgrade with a relatively high benefit to cost ratio for the addition of a signal (Scored a 3.78 following INDOT's HES Analysis Procedures and 8.74 using the BMCMPPO's HSIP Benefit Cost Worksheet).

Minimum Criteria Justification

Crash & Treatment Relationship

An overwhelming majority of accidents at the Henderson/Atwater intersection are right angle accidents. 38 accidents out of 48 total accidents in the last three years have been right angle accidents. The one incapacitating accident was classified as pedestrian in type and head-on in manner.

The ITE Traffic Engineering Handbook states that for a location with pedestrian accidents caused by lack of adequate gaps in vehicular traffic, the recommended improvements include installation of crosswalk traffic control devices, or "pedheads." For right angle collisions at non-signalized intersections with large total intersection volume, the Handbook recommends installation of a traffic signal in consultation with the MUTCD to ensure the intersection meets the warrants for the signal. An analysis of vehicular traffic at this intersection reveals a high volume (15,000 VPD) at this intersection, which is very close to meeting signal warrants. Two other warrants are met: one for number of accidents and the other for pedestrian counts (272 pedestrians in the peak AM rush).

Other Treatment Considerations

The intersection of Atwater and Henderson is one of the few places in Bloomington where two arterials intersect without a traffic signal. Engineering staff considered several alternatives to the minor road stop control on Henderson. These alternatives included the following: roundabout intersection, signalized intersection, all-way stop control, close Henderson Street south of the intersection, and the "do nothing" alternative.

The roundabout option required right-of-way acquisition which would have had serious impacts on the historic Legg House property at the northwest corner of the intersection. We ruled this option out right away given the environmental impacts we would have been forced to mitigate because of the state funding involved.

An all-way stop controlled intersection would have caused congestion issues throughout the corridor. Modeling this scenario reveals disruption to the existing signalized intersection at 3rd & Dunn, 3rd & Indiana, and 3rd & Lincoln. Having a 2nd through lane at a stop sign also complicates the driver decision process in determining who has the right of way. Pedestrian safety also is a concern in this scenario because pedestrians at the intersection could be confused on when they are allowed to cross. Given the large number of pedestrians using this intersection (22% of the traffic volume during the peak hour), the more likely scenario would be that pedestrians would cross Atwater away from the Henderson intersection between queuing cars.

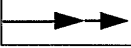
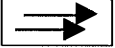



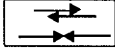
Permanently closing Henderson Street would divert approximately 5000 vehicles per day from this secondary arterial street to locally designated streets accustomed to much lower volumes. Local streets are not designed to accommodate this much traffic and the likelihood of building another arterial through a core neighborhood is very low.

The estimated cost of the "do nothing" approach to this intersection are \$246,759 in damages annually when compared to the option proposed in this HSIP application. The City has implemented additional signage and has made operational changes to the signal at 3rd and Dunn in an attempt to correct accident problems at this intersection. Those changes have not decreased the number of accidents at the intersection.

Treatment Cost Effectiveness

Given the unsuccessful modifications the City has made to this intersection over the years and the evaluation of alternatives, the installation of a traffic signal is the best option. As stated earlier, the ITE Traffic Engineering Handbook recommends a traffic signal in this scenario. A traffic signal allows safer crossing phases for pedestrians and eliminates the need to anticipate gaps in traffic on the major road. The project also improves sight distance, geometrics, and pedestrian facilities such as wider sidewalks and countdown timers on the pedestrian signals. Relocation of the Dunn Street connector and realignment of the left turn lane from Atwater to Indiana reduce the distraction to drivers and provides improved lane channelization for through traffic on the primary arterial. Additionally, a traffic signal at this intersection on Henderson conveys to drivers that the Atwater intersection is a change from the stop conditions previously encountered south of the intersection.

Using the worksheet provided by the BMCMPPO (enclosed), the project results in a benefit nine times that of the projected costs. The various Crash Reduction Factors coinciding with the proposed improvements resulted in a cost/benefit ratio of 8.74. The high number of total accidents in concert with the moderate severity of these accidents results in a high benefit over the life of the proposed improvements.

HSIP Benefit/Cost Worksheet			Roadway/ Intersection Code(s)		Location				Study Period Begins	Study Period Ends																																																																
			Atwater Ave. & Henderson St. (inclusive of Atwater/Indiana and Indiana/Henderson)				1/1/2005	12/31/2007																																																																		
			Description of Proposed Work																																																																							
Crash Type / Number			Rear End	Sideswipe Same Direction	Left Turn Main Line	Right Angle	Ran off Road	Head On/ Sideswipe - Opposite Direction	Pedestrian	Other	Total																																																															
																																																																										
Number of crashes during study period	Fatal	F																																																																								
	Personal Injury (PI)	A									1																																																															
		B									9																																																															
		C									2																																																															
	Property Damage	PD									1																																																															
			2		29		1		1		2	35																																																														
% Change in Crashes (from FHWA Desktop Reference for Crash Reduction Factors)	Fatal	F																																																																								
	Personal Injury (PI)	A									-35%																																																															
		B									-87%																																																															
		C									-13%																																																															
	Property Damage	PD									-20%																																																															
			-20%		-87%		0%		-27%		-50%																																																															
Change in Crashes (no. crashes x CRF)	Fatal	F																																																																								
	Personal Injury (PI)	A									-0.35																																																															
		B									-7.83																																																															
		C									-0.26																																																															
	Property Damage	PD									-0.13																																																															
			-0.40		-25.23		0.00		-0.27		-1.00	-26.90																																																														
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Crash Codes

F	Fatal	
A	Incapacitating Injury	Crash Reduction Factor = $1 - ((1 - .37) * (1 - .74) * (1 - .25)) = 87\%$
B	Evident Injury	.37 = Improvement of Sight Dist. To Intersection
C	Possible Injury	.74 = Conversion minor road stop control to signal
PD	Property Damage Only	.25 = Improve and install pedestrian crossing

Notes
Where more than one CRF applies, use the following formula to obtain the combined CRF:
 $CRF = 1 - [(1 - CRF1)(1 - CRF2)(1 - CRF3)]$
from http://www.dot.state.mn.us/trafficeng/safety/hes/kentucky_report.pdf; Development of Accident Reduction Factors

See "Calculations" sheet for amortization.

Amortizing...

Year	Crash Benefits	Present Worth Benefits	Present Worth Costs
2009	\$ 246,759	\$ 246,759	\$ 571,875
2010	\$ 249,226	\$ 239,641	
2011	\$ 251,719	\$ 232,728	
2012	\$ 254,236	\$ 226,015	
2013	\$ 256,778	\$ 219,495	
2014	\$ 259,346	\$ 213,163	
2015	\$ 261,939	\$ 207,014	
2016	\$ 264,559	\$ 201,043	
2017	\$ 267,204	\$ 195,244	
2018	\$ 269,876	\$ 189,612	
2019	\$ 272,575	\$ 184,142	
2020	\$ 275,301	\$ 178,830	
2021	\$ 278,054	\$ 173,672	
2022	\$ 280,834	\$ 168,662	
2023	\$ 283,643	\$ 163,797	
2024	\$ 286,479	\$ 159,072	
2025	\$ 289,344	\$ 154,483	
2026	\$ 292,237	\$ 150,027	
2027	\$ 295,160	\$ 145,699	
2028	\$ 298,111	\$ 141,496	
2029	\$ 301,092	\$ 137,415	
2030	\$ 304,103	\$ 133,451	
2031	\$ 307,144	\$ 129,601	
2032	\$ 310,216	\$ 125,863	
2033	\$ 313,318	\$ 122,232	
2034	\$ 316,451	\$ 118,706	
2035	\$ 319,616	\$ 115,282	
2036	\$ 322,812	\$ 111,957	
2037	\$ 326,040	\$ 108,727	
2038	\$ 329,300	\$ 105,591	
0	\$ -	\$ -	

Totals = \$ 4,999,416 \$ 571,875
(B) (C)

year (n)= 1, 2, 3,....

discount rate (i) = 7%

$$\text{Crash Benefits (@ year } n) = (\text{Crash Benefits})_{n-1} \times (1 + \text{Traffic Growth Factor})$$

$$\text{Present Worth Benefits (@ year } n) = (\text{Crash Benefits})_n \times 1/(1 + \text{Discount Rate})^n$$

Data Collection Plan

As part of the project design, the City has collected pre-treatment crash data and conducted traffic counts and analyses of the Atwater/Henderson intersection. The post-treatment data collection plan will look similar to this. We propose to conduct traffic volume counts three years after the project is constructed. We also will collect accident data from the State database (ARIES) for the three calendar years following completion of the project. We need information regarding both accidents and volumes so that we can compare the accident rate from existing conditions to the rate following the proposed improvements. This plan can be executed at the Engineering staff level.